



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Appln of: Neal S. BERGANO

Atty. Docket No.: TCM137CON3

Title: Synchronous Amplitude Modulation for Improved Performance of Optical Transmission Systems

Serial No.: 10/780,830

Art Unit: 2874

Filed: February 18, 2004

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

INFORMATION DISCLOSURE STATEMENT

The references listed on the attached form PTO-1449 relate to the subject matter of the present invention and are brought to the attention of the Patent and Trademark Office pursuant to 37 C.F.R. 1.56 and 1.98.

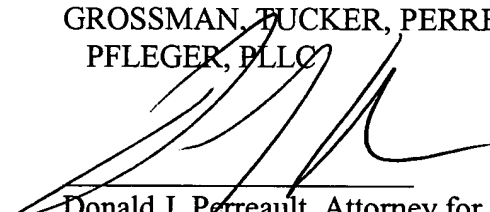
The first three cited references, Bergano et al; Bergano and Davidson **and** Bergano et al were properly cited in compliance with 37 CFR 1.98 (a) through (c) in continuation application serial number 10/689,484, which is relied upon for an earlier filing date pursuant to 35 U.S.C. §120. Since copies of such references were properly provided in the parent application, copies are not enclosed herewith pursuant to 37 CFR 1.98(d).

This statement is being submitted prior to a first office action on the merits. While this statement contains all the relevant information presently known to the applicant, it should not be interpreted as a representation that an exhaustive search has been conducted or that no other relevant information exists. Also, this statement should not be interpreted as a representation

that any cited reference is prior art, or that any cited reference is "material to patentability" as defined in 37 CFR §1.56. The applicant invites the Examiner to make an independent evaluation of each cited reference to determine their relevance to the subject matter of the present application.

Respectfully submitted,

GROSSMAN, TUCKER, PERREAULT &
PFLEGER, PLLC



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Dated: June 4, 2004

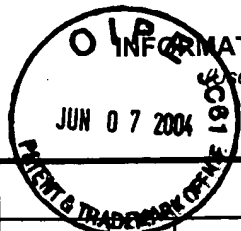
CERTIFICATION UNDER 37 CFR 1.8

I hereby certify that this INFORMATION DISCLOSURE STATEMENT along with any paper or document referred to therein as being attached or enclosed, is being deposited with the United States Postal Service on June 4, 2004 as postage pre-paid first class mail in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

By



Jennifer L. Hobbs



INFORMATION DISCLOSURE CITATION

(Use several sheets if necessary)

ATTY DOCKET NO.

TCM137CON3

SERIAL NO.

10/780,830

Neal S. BERGANO

FILING

02/18/2004

GROUP

2874

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	4,190,802	02/26/1980	Levine	325	320	
	4,829,598	05/09/1989	Auracher et al	455	619	
	5,050,176	09/17/1991	Naito et al	372	26	
	5,115,332	05/19/1992	Naito et al	359	189	
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	5,477,375	12/19/1995	Korotky et al	359	264	
	5,526,162	06/11/1996	Bergano	359	181	

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	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

		Bergano et al; "100Gb/s WDM Transmission of Twenty 5 Gb/s NRZ Data Channels Over Transoceanic Distances Using a Gain Flattened Amplifier Chain;" European Conference on Optical Communication (ECOC'95), Paper Th. A.3.1., Brussels, Belgium, Sept. 17-21, 1995.
		Bergano and Davidson; IEEE Journal of Lightwave Technology, Vol. 14, No. 6, p. 1299; June 1996

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DATE CONSIDERED

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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	FILING 02/18/2004	GROUP 2874

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	5,543,952	08/06/1996	Yonenaga et al	359	181	
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	6,396,605	05/28/2002	Heflinger et al	359	154	
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	2003/0210912	11/13/2003	Leuthold et al	398	188	05/13/2002

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					YES	NO

OTHER DOCUMENTS *(Including Author, Title, Date, Pertinent Pages, Etc.)*

			Bergano et al; IEEE Phot. Tech. Lett., Vol. 5, No. 3; March 1993
			Atia et al; "Demonstration of Return-to-Zero Signaling in Both OOK and DPSK Formats to Improve Receiver Sensitivity in an Optically Preamplified Receiver"; 1999; IEEE, pp. 226-227.

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INFORMATION DISCLOSURE CITATION <i>(Use several sheets if necessary)</i>		Docket Number (Optional)		Application Number	
		TCM137CON3		10/780,830	
		Applicant(s)			
		Neal S. Bergano			
		Filing Date		Group Art Unit	
		02/18/2004		2874	

*EXAMINER INITIAL	OTHER DOCUMENTS <i>(Including Author, Title, Date, Pertinent Pages, Etc.)</i>		
	Yonenaga et al; "Dispersion Compensation for Homodyne Detection Systems Using a 10-Gb/s Optical PSK-VSB Signal"; Aug. 1995; IEEE Photonics Technology Letters, Vol. 7, No. 8, pp. 929-931.		
	Abbas et al; "A Dual-Detector Optical Heterodyne Receiver for Local Oscillator Noise Suppression"; Oct. 1985; Journal of Lightwave Technology; Vol. LT-3, No. 5; pp. 1110-1122.		
	Koyama et al; "Frequency Chirping in External Modulators"; Jan. 1988; Journal of Lightwave Technology; Vol. 6, No. 1; pp. 87-93.		
	Park et al; "Crosstalk in a Two-Channel Coherent Fiber Optic ASK System Using an Optical Amplifier and Non-Negligible Linewidth Lasers"; Jan. 1988; Optical Fiber Communications Conference; pp. PD19-1 - PD19-5.		
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	Jacobsen et al; "Theory for Optical Heterodyne DPSK Receivers with Post-Detection Filtering"; April 1987; Journal of Lightwave Technology; Vol. LT-5, No. 4; pp. 478-484.		
	Elec. Let. October 22, 1987; Vol. 23, No. 22, pp. 1180-1181		
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	R.S. Vodhanel; "5 Gbit/s Direct Optical DPSK Modulation of a 1530-nm DFB Laser"; August 1989; "IEEE Photonics Technology Letters, Vol. 1, No. 8; pp. 218-220.		
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">EXAMINER</td> <td style="width: 50%;">DATE CONSIDERED</td> </tr> </table>		EXAMINER	DATE CONSIDERED
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	Shum et al; "Analysis of a DPSK Soliton Transmission System"; 1997; Optics & Laser Technology, Vol. 29, No. 7; pp. 411-414.
	Kim et al; "Experimental Investigation of the Performance Limitation of DPSK Systems Due to Nonlinear Phase Noise"; Feb. 2003; IEEE Photonics Technology Letters; Vol. 15, No. 2; pp. 320-322.
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	Xu et al; "Comparison of Return-to-Zero Differential Phase-Shift Keying and On-Off Keying in Long-Haul Dispersion Managed Transmission"; April 2003; IEEE Photonics Technology Letters, Vol. 15, No. 4; pp. 617-619.
	Leibrich et al; "CF-RZ-DPSK for Suppression of XPM on Dispersion-Managed Long-Haul Optical WDM Transmission on Standard Single-Mode Fiber"; Feb. 2002; IEEE Photonics Technology Letters, Vol. 14, No. 2; pp. 155-157.
	Chikama et al; "Modulation and Demodulation Techniques in Optical Heterodyne PSK Transmission Systems"; March 1990, Journal of Lightwave Technology, Vol. 8, No. 3, pp. 309-322.
	Yamazaki et al; "A 1.2 Gb/s Optical DPSK Heterodyne Detection Transmission System Using Monolithic External Cavity-DFB LDs"; Jan. 1987; Optical Fiber Communication Conference; pp. 48-51.
	Vodhanel et al; "Performance of Directly Modulated DFB Lasers in 10-Gb/s ASK, FSK, and DPSK Lightwave Systems"; Sept. 1990; Journal of Lightwave Technology, Vol. 8, No. 9, pp. 1379-1386
	Swanson et al; "High Sensitivity Optically Preamplified Direct Detection DPSK Receiver with Active Delay-Line Stabilization"; Feb. 1994; IEEE Photonics Technology Letters, Vol. 6, No. 2, pp. 263-265.
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Abbas et al; "Local-Oscillator Excess-Noise Suppression for Homodyne and Heterodyne Detection"; Aug. 1983; Optics Letters, Vol. 8, No. 8; pp. 419-421.

Yonenaga et al; "Reduction of Four-Wave Mixing Induced Penalty in Unequally Spaced WDM Transmission System by Using Optical DPSK" Nov. 7, 1996; Electronics Letters; Vol. 32, No. 23.

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